Baseband Description

Baseband 5216, Baseband 5212

Description

78/1551-LZA 701 6001/1 Uen B

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1 Product Overview

This document describes the Baseband units for RBS 6000 systems.

1.1 Purpose

The Baseband units provides switching, traffic management, timing, baseband processing, and radio interfacing.

1.2 Variants

The Baseband variants are the following:

- Baseband 5212
- Baseband 5216

Baseband 5212 is supported from software L16A, W16A, and G16B.

Baseband 5216 is supported from software L15B, W16A, and G16B.

For information on supported configurations and capacity, refer to *RBS Configurations*

1.3 Overview

This section provides an overview of the Baseband, as shown in Figure 1.

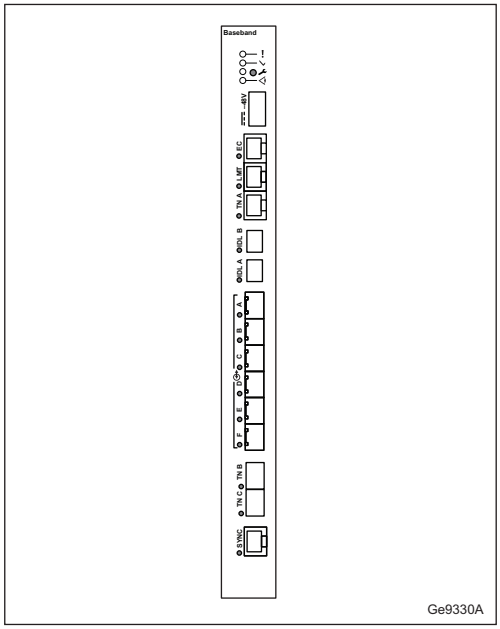

Figure 1 Overview Baseband 5216 and Baseband 5212

Information about Baseband unit placement can be found in *RBS Description*.

1.4 Warranty Seal

The unit is equipped with a warranty seal sticker.

Note: Seals that have been implemented by Ericsson are not be broken or removed, as it otherwise voids warranty.

2 Function Description

The Baseband unit has the following functions:

- Timing function
- Loadable software
- Downlink baseband processing
- Uplink baseband processing
- IP traffic management
- Radio interface
- Transmission handling
- External synchronization
- Controlling power and climate of the RBS

For the block diagram of the Baseband unit, see Figure 2.

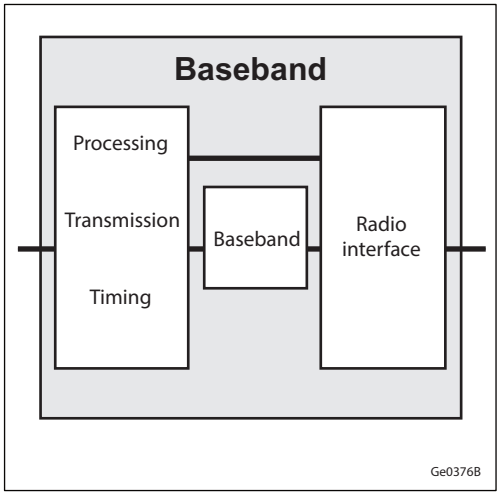

Figure 2 Baseband Block Diagram

3 Technical Data

Technical data for the Baseband is listed in Table 1 , and Table 2.

For information about power consumption, see *Power Consumption Guideline for RBS 6000*.

Table 1 Dimensions and Weight

Baseband	Height	Width	Depth	Weight
Baseband 5216	350 mm	31 mm	280 mm	< 4kg
Baseband 5212				

Table 2 Technical Data

Baseband	Capacity Data LTE(1)	Capacity Data WCDMA(1) Maximum DCH(2) Capacity (Measured in Channel Elements)	Capacity Data GSM	Supported Radio Interface Connections CPRI
Baseband 5216	• 8000 connected users • 960 MHz antenna bandwidth(3) • Up to 2000 FDD or 1000 TDD VoIP users • 1200 Mbps DL throughput(3) • 600 Mbps UL throughput(3)	1152 DL 768 UL, 1920 EUL	48 TRX	2.5 Gbps, 4.9 Gbps(1), 9.8 Gbps(1), and 10.1 Gbps(1)

Baseband	Capacity Data LTE[1]	Capacity Data WCDMA[1] Maximum DCH[2] Capacity (Measured in Channel Elements)	Capacity Data GSM	Supported Radio Interface Connections CPRI
Baseband 5212	• 4000 connected users • 480 MHz antenna bandwidth[3] • Up to 1200 FDD or 500 TDD VoIP users • 600 Mbps DL throughput[3] • 300 Mbps UL throughput[3]	576 DL 576 UL, 960 EUL	24 TRX	2.5 Gbps, 4.9 Gbps[1], 9.8 Gbps[1], and 10.1 Gbps[1]

(1) Depending on the Software Package

(2) Dedicated Channel

(3) Depending on the Radio Configuration

4 Baseband Interfaces

The signalling and power interfaces for the Baseband units are listed in Table 3.

Table 3 Baseband 5216 Interfaces

Marking	Connector	Description	Optical Indicator(1)
-48 V	ET20 A	-48 V DC Power	Yes
SYNC	RJ-45	The Baseband unit can receive synchronization from a synchronization interface, for example GPS, or over the transport network. External interface	Yes
EC	RJ-45	Enclosure Control Bus (ECB) Internal interface	Yes
LMT(2)	RJ-45	Console and LMT Internal and external interfaces Sync test	Yes(3)
TN A(4)	RJ-45	100Mb/1Gb Ethernet transmission External interface, electrical	Yes
TN B(4) (5)	SFP+(6)	1/10 Gb Ethernet transmission External interface, electrical/optical	Yes
TN C(4) (5)	SFP+(6)	1/10 Gb Ethernet transmission External interface, electrical/optical	Yes

Marking	Connector	Description	Optical Indicator[1]
!	-	Fault Optical indicator, red	Yes
✓	-	Operation Optical indicator, green	Yes
🔧	-	Maintenance Optical indicator, blue For information about the maintenance button, refer to *Indicators, Buttons, and Switches*	Yes
◁	-	Status Optical indicator, yellow	Yes
IDL A	Xcede	Inter Digital Link ethernet (IDLe) Internal interface, Baseband to Baseband Combined IDLe and CPRI[7]	Yes
IDL B	Xcede	IDLe Internal interface, Baseband to Baseband Combined IDLe and CPRI[7]	Yes
⊶ A - F	SFP+[8]	Radio interface x 6 Internal interface between Baseband and Radio Unit (RU), electrical External interface between Baseband and Remote Radio Unit (RRU), optical	Yes

(1) For more information about optical indicators, refer to Indicators, Buttons, and Switches

(2) The LMT port has combined LMT A and LMT B functionality. The LMT port is configured as LMT B by default. An LMT splitter cable is used to access LMT A. For detailed information, see Connect Client.

(3) The optical indicator is only in use when the LMT port is used as LMT B.

(4) Hardware Activation Codes are required for use of multiple TN ports simultaneously

(5) Hardware Activation Codes are required for use of 10Gb transmission

(6) SFP+ is needed for transmission rates higher than 2.5 Gbps.

(7) The IDLe Xcede connection also supports the CPRI interface.

(8) SFP+ is needed for CPRI rates higher than 2.5 Gbps.

Table 4 Baseband 5212 Interfaces

Marking	Connector	Description	Optical Indicator(1)
-48 V	ET20 A	-48 V DC Power	Yes
SYNC	RJ-45	The Baseband unit can receive synchronization from a synchronization interface, for example GPS, or over the transport network. External interface	Yes
EC	RJ-45	Enclosure Control Bus (ECB) Internal interface	Yes
LMT(2)	RJ-45	Console and LMT Internal and external interfaces Sync test	Yes(3)
TN A(4)	RJ-45	100Mb/1Gb Ethernet transmission External interface, electrical	Yes
TN B(4) (5)	SFP+(6)	1/10 Gb Ethernet transmission External interface, electrical/optical	Yes

Marking	Connector	Description	Optical Indicator[1]
TN C[4]	SFP+[6]	1 Gb Ethernet transmission External interface, electrical/optical	Yes
!	-	Fault Optical indicator, red	Yes
✓	-	Operation Optical indicator, green	Yes
🔧	-	Maintenance Optical indicator, yellow Optical indicator, blue	Yes
🔧	-	Maintenance button For information about the maintenance button, refer to *Indicators, Buttons, and Switches*	Yes
◁	-	Status Optical indicator, yellow	Yes
IDL A	Xcede	IDLe Internal interface, Baseband to Baseband Combined IDLe and CPRI[7]	Yes
IDL B	Xcede	IDLe Internal interface, Baseband to Baseband Combined IDLe and CPRI[7]	Yes

Marking	Connector	Description	Optical Indicator(1)
A - F	SFP+(8)	Radio interface x 6 Internal interface between Baseband and Radio Unit (RU), electrical External interface between Baseband and Remote Radio Unit (RRU), optical	Yes

(1) For more information about Optical indicators, refer to Indicators, Buttons, and Switches

(2) The LMT port has combined LMT A and LMT B functionality. The LMT port is configured as LMT B by default. An LMT splitter cable is used to access LMT A. For detailed information, see Connect Client.

(3) The optical indicator is only in use when the LMT port is used as LMT B.

(4) Hardware Activation Codes are required for use of multiple TN ports simultaneously

(5) Hardware Activation Codes are required for use of 10Gb transmission

(6) SFP+ is needed for transmission rates higher than 2.5 Gbps.

(7) The IDLe Xcede connection also supports the CPRI interface.

(8) SFP+ is needed for CPRI rates higher than 2.5 Gbps.